

CLEAN COPY OF CLAIMS

I claim:

- 1. An immunophilin, comprising a protein with the following properties:**

- (i) a protein of 8.4 kDa mass;**
- (ii) isolated from the soluble cytoplasm of lymphoid tissues;**
- (iii) the N-terminal first 23 amino acid sequence is:**

MET GLN ILE PHE VAL LYS THR LEU THR GLY Seq. ID No. 1
LYS THR ILE THR LEU GLU VAL GLU PRO SER
ASP THR ILE

and,

- (iv) capable of specifically binding FK-506, rapamycin, or pharmacologically active metabolites thereof or pharmacologically active derivatives of rapamycin, but not cyclosporins.**

- 4. An immunophilin according to claim 1, wherein said protein exhibits a binding constant Kd of about 0.8 nM for FK-506 and 0.08 nM for rapamycin.**
- 5. An immunophilin according to claim 1, wherein said protein has a Hill plot value of about unity.**
- 6. An immunophilin according to claim 1, wherein said protein, when complexed to FK-506, inhibits calcineurin phosphatase activity.**
- 7. A recombinant 8.4 kDa immunophilin with the properties exhibited by the isolated 8.4 kDa immunophilin according to claim 1.**
- 9. A mercantile kit for the determination of immunosuppressant drugs FK-506, rapamycin and pharmacologically active metabolites thereof and**

pharmacologically-active derivatives of rapamycin in a fluid sample, comprising, in separate compartments: a recombinant 8.4 kDa immunophilin according to claim 7; optionally, one or more of unlabeled said immunosuppressant drugs or pharmacologically-active metabolites thereof and pharmacologically-active derivatives of rapamycin; and, optionally, one or more labeled said immunosuppressant drugs or pharmacologically-active metabolites or derivatives thereof.